

*(A3)* line 10, after "(ATCC)," please delete the address "12301 Parklawn Drive, Rockville, MD 20852" and replace with the ATCC's new address: -- 10801 University Boulevard, Manassas, VA 20110-2209.--;

*(A4)* between lines 11 and 12, please insert ~~+~~The deposited strains are maintained under the terms of the Budapest Treaty and will be made available to a patent office signatory to the Budapest Treaty.--.

**On page 15**, line 9, please delete "(150 mM NaCl, 15 mM trisodium citrate)" and replace therefor --(750 mM NaCl, 75 mM trisodium citrate)--.

**On page 45**, line 6, after "of 1.6" please delete "Kd" and replace thereto --Kb--.

### ***In the Claims***

Please cancel claims 2-21, and 25, without prejudice or disclaimer of the subject matter therein.

Please add the following new claims.

--33. (New) A purified mature protein produced by the method comprising:

(a) expressing a mature protein of a polypeptide comprising the amino acid sequence of SEQ ID NO:4 from a host cell; and

(b) recovering said mature protein.

*(A5)* 34. (New) The purified mature protein of claim 33, wherein the mature protein is recovered from a natural source.

35. (New) The purified mature protein of claim 33, wherein the mature protein is recovered from a recombinant host cell engineered to express the mature protein.

36. (New) The purified mature protein of claim 33, wherein the mature protein is recovered from a mammalian cell.

37. (New) The purified mature protein of claim 33, wherein the mature protein is recovered from a bacterial cell.

38. (New) The purified mature protein of claim 33, wherein the mature protein is recovered from a baculovirus cell.

39. (New) The purified mature protein of claim 33, wherein the mature protein is recovered from a yeast cell.

40. (New) The purified mature protein of claim 33, wherein the mature protein is recovered by chromatography.

41. (New) The purified mature protein of claim 33, wherein the mature protein is recovered by an antibody.

42. (New) The purified mature protein of claim 33, wherein the mature protein is a homodimer.

43. (New) The purified mature protein of claim 33, wherein the mature protein is fused to a heterologous polypeptide.

44. (New) A composition comprising the purified mature protein of claim 33 and a pharmaceutically acceptable carrier.

45. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified mature protein of claim 33, wherein the patient has a wound, tissue, or bone damage.

46. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified mature protein of claim 33, wherein the patient has ischemia.

47. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified mature protein of claim 33, wherein the patient has had a myocardial infarction.

48. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified mature protein of claim 33, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

49. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified mature protein of claim 33, wherein the patient has a wound, tissue, or bone damage.

50. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified mature protein of claim 33, wherein the patient has ischemia.

51. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified mature protein of claim 33, wherein the patient has had a myocardial infarction.

52. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified mature protein of claim 33, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

53. (New) A purified proprotein produced by the method comprising:

- (a) expressing a proprotein of the purified proprotein comprising the amino acid sequence of SEQ ID NO:4 from a host cell; and
- (b) recovering said proprotein.



54. (New) The purified proprotein of claim 53, wherein the proprotein is recovered from a natural source.

55. (New) The purified proprotein of claim 53, wherein the proprotein is recovered from a recombinant host cell engineered to express the proprotein.

56. (New) The purified proprotein of claim 53, wherein the proprotein is recovered from a mammalian cell.

57. (New) The purified proprotein of claim 53, wherein the proprotein is recovered from a bacterial cell.

58. (New) The purified proprotein of claim 53, wherein the proprotein is recovered from a baculovirus cell.

59. (New) The purified proprotein of claim 53, wherein the proprotein is recovered from a yeast cell.

60. (New) The purified proprotein of claim 53, wherein the proprotein is recovered by chromatography.

61. (New) The purified proprotein of claim 53, wherein the proprotein is recovered by an antibody.

62. (New) The purified proprotein of claim 53, wherein the proprotein is a homodimer.

63. (New) The purified proprotein of claim 33, wherein the proprotein is fused to a heterologous polypeptide.

64. (New) A composition comprising the purified proprotein of claim 53 and a pharmaceutically acceptable carrier.

65. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified proprotein of claim 53, wherein the patient has a wound, tissue, or bone damage.

66. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified proprotein of claim 53, wherein the patient has ischemia.

67. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified proprotein of claim 53, wherein the patient has had a myocardial infarction.

68. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified proprotein of claim 53, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

69. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified proprotein of claim 53, wherein the patient has a wound, tissue, or bone damage.

70. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified proprotein of claim 53, wherein the patient has ischemia.

71. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified proprotein of claim 53, wherein the patient has had a myocardial infarction.

72. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified proprotein of claim 53, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

73. (New) A purified mature protein produced by the method comprising:

(a) expressing a mature protein encoded by the cDNA contained in ATCC

Deposit Nos. 97149 from a host cell; and

(b) recovering said mature protein.

74. (New) The purified mature protein of claim 73, wherein the mature protein is recovered from a natural source.

75. (New) The purified mature protein of claim 73, wherein the mature protein is recovered from a recombinant host cell engineered to express the mature protein.

76. (New) The purified mature protein of claim 73, wherein the mature protein is recovered from a mammalian cell.

77. (New) The purified mature protein of claim 73, wherein the mature protein is recovered from a bacterial cell.

78. (New) The purified mature protein of claim 73, wherein the mature protein is recovered from a baculovirus cell.

79. (New) The purified mature protein of claim 73, wherein the mature protein is recovered from a yeast cell.

80. (New) The purified mature protein of claim 73, wherein the mature protein is recovered by chromatography.

81. (New) The purified mature protein of claim 73, wherein the mature protein is recovered by an antibody.

82. (New) The purified mature protein of claim 73, wherein the mature protein is a homodimer.

83. (New) The purified mature protein of claim 73, wherein the mature protein is fused to a heterologous polypeptide.

84. (New) A composition comprising the purified mature protein of claim 73 and a pharmaceutically acceptable carrier.

85. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified mature protein of claim 73, wherein the patient has a wound, tissue, or bone damage.

86. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified mature protein of claim 73, wherein the patient has ischemia.

87. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified mature protein of claim 73, wherein the patient has had a myocardial infarction.

88. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified mature protein of claim 73, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

89. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified mature protein of claim 73, wherein the patient has a wound, tissue, or bone damage.

90. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified mature protein of claim 73, wherein the patient has ischemia.

91. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified mature protein of claim 73, wherein the patient has had a myocardial infarction.

92. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified mature protein of claim 73, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

93. (New) A purified proprotein produced by the method comprising:

- (a) expressing a proprotein encoded by the cDNA contained in ATCC Deposit Nos. 97149 from a host cell; and

- (b) recovering said proprotein.

94. (New) The purified proprotein of claim 93, wherein the proprotein is recovered from a natural source.

95. (New) The purified proprotein of claim 93, wherein the proprotein is recovered from a recombinant host cell engineered to express the proprotein.

96. (New) The purified proprotein of claim 93, wherein the proprotein is recovered from a mammalian cell.

97. (New) The purified proprotein of claim 93, wherein the proprotein is recovered from a bacterial cell.

98. (New) The purified proprotein of claim 93, wherein the proprotein is recovered from a baculovirus cell.

99. (New) The purified proprotein of claim 93, wherein the proprotein is recovered from a yeast cell.

100. (New) The purified proprotein of claim 93, wherein the proprotein is recovered by chromatography.

101. (New) The purified proprotein of claim 93, wherein the proprotein is recovered by an antibody.

102. (New) The purified proprotein of claim 93, wherein the proprotein is a homodimer.

103. (New) The purified proprotein of claim 93, wherein the proprotein is fused to a heterologous polypeptide.

104. (New) A composition comprising the purified proprotein of claim 93 and a pharmaceutically acceptable carrier.

105. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified proprotein of claim 93, wherein the patient has a wound, tissue, or bone damage.

106. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified proprotein of claim 93, wherein the patient has ischemia.

107. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified proprotein of claim 93, wherein the patient has had a myocardial infarction.

108. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified proprotein of claim 93, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

109. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified proprotein of claim 93, wherein the patient has a wound, tissue, or bone damage.

110. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified proprotein of claim 93, wherein the patient has ischemia.

111. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified proprotein of claim 93, wherein the patient has had a myocardial infarction.

112. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified proprotein of claim 93, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

113. (New) A purified protein produced by the method comprising:

- (a) expressing a protein encoded by the cDNA contained in ATCC Deposit Nos. 97149 from a host cell; and
- (b) recovering said protein.

114. (New) The purified protein of claim 113, wherein the protein is recovered from a natural source.  
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115. (New) The purified protein of claim 113, wherein the protein is recovered from a recombinant host cell engineered to express the protein.

116. (New) The purified protein of claim 113, wherein the protein is recovered from a mammalian cell.

117. (New) The purified protein of claim 113, wherein the protein is recovered from a bacterial cell.

118. (New) The purified protein of claim 113, wherein the protein is recovered from a baculovirus cell.

119. (New) The purified protein of claim 113, wherein the protein is recovered from a yeast cell.

120. (New) The purified protein of claim 113, wherein the protein is recovered by chromatography.

121. (New) The purified protein of claim 113, wherein the protein is recovered by an antibody.

122. (New) The purified protein of claim 113, wherein the protein is a homodimer.

123. (New) The purified protein of claim 113, wherein the protein is fused to a heterologous polypeptide.

124. (New) A composition comprising the purified protein of claim 113 and a pharmaceutically acceptable carrier.

125. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 113, wherein the patient has a wound, tissue, or bone damage.

126. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 113, wherein the patient has ischemia.

127. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 113, wherein the patient has had a myocardial infarction.

128. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 113, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

129. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 113, wherein the patient has a wound, tissue, or bone damage.

130. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 113, wherein the patient has ischemia.

131. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 113, wherein the patient has had a myocardial infarction.

132. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 113, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

133. (New) A purified protein produced by the method comprising:  
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(a) expressing a protein comprising amino acids 131 to 144 of SEQ ID NO:2 from a host cell; and  
(b) recovering said protein.

134. (New) The purified protein of claim 133, wherein the protein is recovered from a natural source.

135. (New) The purified protein of claim 133, wherein the protein is recovered from a recombinant host cell engineered to express the protein.

136. (New) The purified protein of claim 133, wherein the protein is recovered from a mammalian cell.

137. (New) The purified protein of claim 133, wherein the protein is recovered from a bacterial cell.

138. (New) The purified protein of claim 133, wherein the protein is recovered from a baculovirus cell.

139. (New) The purified protein of claim 133, wherein the protein is recovered from a yeast cell.

140. (New) The purified protein of claim 133, wherein the protein is recovered by chromatography.

141. (New) The purified protein of claim 133, wherein the protein is recovered by an antibody.

142. (New) The purified protein of claim 133, wherein the protein is a homodimer.

143. (New) The purified protein of claim 133, wherein the protein is fused to a heterologous polypeptide.

144. (New) A composition comprising the purified protein of claim 133 and a pharmaceutically acceptable carrier.

145. (New) A purified protein produced by the method comprising:

- (a) expressing a protein comprising amino acids 71 to 396 of SEQ ID NO:2 from a host cell; and
- (b) recovering said protein.

146. (New) The purified protein of claim 145, wherein the protein is recovered from a natural source.

147. (New) The purified protein of claim 145, wherein the protein is recovered from a recombinant host cell engineered to express the protein.

148. (New) The purified protein of claim 145, wherein the protein is recovered from a mammalian cell.

149. (New) The purified protein of claim 145, wherein the protein is recovered from a bacterial cell.

150. (New) The purified protein of claim 145, wherein the protein is recovered from a baculovirus cell.

151. (New) The purified protein of claim 145, wherein the protein is recovered from a yeast cell.

152. (New) The purified protein of claim 145, wherein the protein is recovered by chromatography.

153. (New) The purified protein of claim 145, wherein the protein is recovered by an antibody.

154. (New) The purified protein of claim 145, wherein the protein is a homodimer.

155. (New) The purified protein of claim 145, wherein the protein is fused to a heterologous polypeptide.

156. (New) A composition comprising the purified protein of claim 145 and a pharmaceutically acceptable carrier.

157. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 145, wherein the patient has a wound, tissue, or bone damage.

158. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 145, wherein the patient has ischemia.

159. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 145, wherein the patient has had a myocardial infarction.

160. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 145, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

161. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 145, wherein the patient has a wound, tissue, or bone damage.

162. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 145, wherein the patient has ischemia.

163. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 145, wherein the patient has had a myocardial infarction.

164. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 145, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

165. (New) A purified protein produced by the method comprising:  
(a) expressing a protein comprising amino acids 24 to 396 of SEQ ID NO:2 from a host cell; and

(b) recovering said protein.

166. (New) The purified protein of claim 165, wherein the protein is recovered from a natural source.

167. (New) The purified protein of claim 165, wherein the protein is recovered from a recombinant host cell engineered to express the protein.

168. (New) The purified protein of claim 165, wherein the protein is recovered from a mammalian cell.

169. (New) The purified protein of claim 165, wherein the protein is recovered from a bacterial cell.

170. (New) The purified protein of claim 165, wherein the protein is recovered from a baculovirus cell.

171. (New) The purified protein of claim 165, wherein the protein is recovered from a yeast cell.

172. (New) The purified protein of claim 165, wherein the protein is recovered by chromatography.

173. (New) The purified protein of claim 165, wherein the protein is recovered by an antibody.

174. (New) The purified protein of claim 165, wherein the protein is a homodimer.

175. (New) The purified protein of claim 165, wherein the protein is fused to a heterologous polypeptide.

176. (New) A composition comprising the purified protein of claim 165 and a pharmaceutically acceptable carrier.

177. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 165, wherein the patient has a wound, tissue, or bone damage.

178. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 165, wherein the patient has ischemia.

179. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 165, wherein the patient has had a myocardial infarction.

180. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 165, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

181. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 165, wherein the patient has a wound, tissue, or bone damage.

182. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 165, wherein the patient has ischemia.

183. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 165, wherein the patient has had a myocardial infarction.

184. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 165, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

185. (New) A purified protein produced by the method comprising:

- (a) expressing a protein comprising amino acids 1 to 396 of SEQ ID NO:2 from a host cell; and

- (b) recovering said protein.

186. (New) The purified protein of claim 185, wherein the protein is recovered from a natural source.

187. (New) The purified protein of claim 185, wherein the protein is recovered from a recombinant host cell engineered to express the protein.

188. (New) The purified protein of claim 185, wherein the protein is recovered from a mammalian cell.

189. (New) The purified protein of claim 185, wherein the protein is recovered from a bacterial cell.

190. (New) The purified protein of claim 185, wherein the protein is recovered from a baculovirus cell.

191. (New) The purified protein of claim 185, wherein the protein is recovered from a yeast cell.

192. (New) The purified protein of claim 185, wherein the protein is recovered by chromatography.

193. (New) The purified protein of claim 185, wherein the protein is recovered by an antibody.

194. (New) The purified protein of claim 185, wherein the protein is a homodimer.

195. (New) The purified protein of claim 185, wherein the protein is fused to a heterologous polypeptide.

196. (New) A composition comprising the purified protein of claim 185 and a pharmaceutically acceptable carrier.

197. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 185, wherein the patient has a wound, tissue, or bone damage.

198. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 185, wherein the patient has ischemia.

199. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 185, wherein the patient has had a myocardial infarction.

200. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 185, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

201. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 185, wherein the patient has a wound, tissue, or bone damage.

202. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 185, wherein the patient has ischemia.

203. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 185, wherein the patient has had a myocardial infarction.

204. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 185, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

205. (New) A purified protein produced by the method comprising:

- (a) expressing a protein comprising amino acids -23 to 396 of SEQ ID NO:2 from a host cell; and



(b) recovering said protein.

206. (New) The purified protein of claim 205, wherein the protein is recovered from a natural source.

207. (New) The purified protein of claim 205, wherein the protein is recovered from a recombinant host cell engineered to express the protein.

208. (New) The purified protein of claim 205, wherein the protein is recovered from a mammalian cell.

209. (New) The purified protein of claim 205, wherein the protein is recovered from a bacterial cell.

210. (New) The purified protein of claim 205, wherein the protein is recovered from a baculovirus cell.

211. (New) The purified protein of claim 205, wherein the protein is recovered from a yeast cell.

212. (New) The purified protein of claim 205, wherein the protein is recovered by chromatography.

213. (New) The purified protein of claim 205, wherein the protein is recovered by an antibody.

214. (New) The purified protein of claim 205, wherein the protein is a homodimer.

215. (New) The purified protein of claim 205, wherein the protein is fused to a heterologous polypeptide.

216. (New) A composition comprising the purified protein of claim 205 and a pharmaceutically acceptable carrier.



217. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 205, wherein the patient has a wound, tissue, or bone damage.

218. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 205, wherein the patient has ischemia.

219. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 205, wherein the patient has had a myocardial infarction.

220. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein of claim 205, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

221. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 205, wherein the patient has a wound, tissue, or bone damage.

222. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 205, wherein the patient has ischemia.

223. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 205, wherein the patient has had a myocardial infarction.

224. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein of claim 205, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

225. (New) A purified protein fragment produced by the method comprising:

- (a) expressing a protein fragment of SEQ ID NO:2 from a host cell, wherein said protein fragment has angiogenic activity; and
- (b) recovering said protein fragment.

226. (New) The purified protein fragment of claim 225, wherein the protein fragment is recovered from a natural source.

227. (New) The purified protein fragment of claim 225, wherein the protein fragment is recovered from a recombinant host cell engineered to express the protein fragment.

228. (New) The purified protein fragment of claim 225, wherein the protein fragment is recovered from a mammalian cell.

229. (New) The purified protein fragment of claim 225, wherein the protein fragment is recovered from a bacterial cell.

230. (New) The purified protein fragment of claim 225, wherein the protein fragment is recovered from a baculovirus cell.

231. (New) The purified protein fragment of claim 225, wherein the protein fragment is recovered from a yeast cell.

232. (New) The purified protein fragment of claim 225, wherein the protein fragment is recovered by chromatography.

233. (New) The purified protein fragment of claim 225, wherein the protein fragment is recovered by an antibody.

234. (New) The purified protein fragment of claim 225, wherein the protein fragment is a homodimer.

235. (New) The purified protein fragment of claim 225, wherein the protein fragment is fused to a heterologous polypeptide.

236. (New) A composition comprising the purified protein fragment of claim 225 and a pharmaceutically acceptable carrier.

237. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 225, wherein the patient has a wound, tissue, or bone damage.

238. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 225, wherein the patient has ischemia.

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239. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 225, wherein the patient has had a myocardial infarction.

240. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 225, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

241. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 225, wherein the patient has a wound, tissue, or bone damage.

242. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 225, wherein the patient has ischemia.

243. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 225, wherein the patient has had a myocardial infarction.

244. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 225, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

245. (New) A purified protein fragment produced by the method comprising:

(a) expressing a protein fragment encoded by the cDNA contained in ATCC Deposit No. 97149 from a host cell, wherein said protein fragment has angiogenic activity; and

(b) recovering said protein fragment.

246. (New) The purified protein fragment of claim 245, wherein the protein fragment is recovered from a natural source.

247. (New) The purified protein fragment of claim 245, wherein the protein fragment is recovered from a recombinant host cell engineered to express the protein fragment.

248. (New) The purified protein fragment of claim 245, wherein the protein fragment is recovered from a mammalian cell.

249. (New) The purified protein fragment of claim 245, wherein the protein fragment is recovered from a bacterial cell.

250. (New) The purified protein fragment of claim 245, wherein the protein fragment is recovered from a baculovirus cell.

251. (New) The purified protein fragment of claim 245, wherein the protein fragment is recovered from a yeast cell.

252. (New) The purified protein fragment of claim 245, wherein the protein fragment is recovered by chromatography.

253. (New) The purified protein fragment of claim 245, wherein the protein fragment is recovered by an antibody.

254. (New) The purified protein fragment of claim 245, wherein the protein fragment is a homodimer.

255. (New) The purified protein fragment of claim 245, wherein the protein fragment is fused to a heterologous polypeptide.

256. (New) A composition comprising the purified protein fragment of claim 245 and a pharmaceutically acceptable carrier.

257. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 245, wherein the patient has a wound, tissue, or bone damage.

258. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 245, wherein the patient has ischemia.

259. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 245, wherein the patient has had a myocardial infarction.

260. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 245, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

261. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 245, wherein the patient has a wound, tissue, or bone damage.

262. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 245, wherein the patient has ischemia.

263. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 245, wherein the patient has had a myocardial infarction.

264. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 245, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

265. (New) A purified protein fragment produced by the method comprising:

- (a) expressing a protein fragment of SEQ ID NO:2 from a host cell, wherein said protein fragment has endothelial cell proliferative activity; and
- (b) recovering said protein fragment.

266. (New) The purified protein fragment of claim 265, wherein the protein fragment is recovered from a natural source.

267. (New) The purified protein fragment of claim 265, wherein the protein fragment is recovered from a recombinant host cell engineered to express the protein fragment.

268. (New) The purified protein fragment of claim 265, wherein the protein fragment is recovered from a mammalian cell.

269. (New) The purified protein fragment of claim 265, wherein the protein fragment is recovered from a bacterial cell.

270. (New) The purified protein fragment of claim 265, wherein the protein fragment is recovered from a baculovirus cell.

271. (New) The purified protein fragment of claim 265, wherein the protein fragment is recovered from a yeast cell.

272. (New) The purified protein fragment of claim 265, wherein the protein fragment is recovered by chromatography.

273. (New) The purified protein fragment of claim 265, wherein the protein fragment is recovered by an antibody.

274. (New) The purified protein fragment of claim 265, wherein the protein fragment is a homodimer.

275. (New) The purified protein fragment of claim 265, wherein the protein fragment is fused to a heterologous polypeptide.

276. (New) A composition comprising the purified protein fragment of claim 265 and a pharmaceutically acceptable carrier.

277. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 265, wherein the patient has a wound, tissue, or bone damage.

278. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 265, wherein the patient has ischemia.

279. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 265, wherein the patient has had a myocardial infarction.

280. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 265, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

281. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 265, wherein the patient has a wound, tissue, or bone damage.

282. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 265, wherein the patient has ischemia.

283. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 265, wherein the patient has had a myocardial infarction.

284. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 265, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

*Sub C4* 285. (New) A purified protein fragment produced by the method comprising:

- (a) expressing a protein fragment encoded by the cDNA contained in ATCC Deposit No. 97149 from a host cell, wherein said protein fragment has endothelial cell proliferative activity; and
- (b) recovering said protein fragment.

286. (New) The purified protein fragment of claim 285, wherein the protein fragment is recovered from a natural source.

287. (New) The purified protein fragment of claim 285, wherein the protein fragment is recovered from a recombinant host cell engineered to express the protein fragment.

288. (New) The purified protein fragment of claim 285, wherein the protein fragment is recovered from a mammalian cell.

289. (New) The purified protein fragment of claim 285, wherein the protein fragment is recovered from a bacterial cell.

290. (New) The purified protein fragment of claim 285, wherein the protein fragment is recovered from a baculovirus cell.

291. (New) The purified protein fragment of claim 285, wherein the protein fragment is recovered from a yeast cell.

292. (New) The purified protein fragment of claim 285, wherein the protein fragment is recovered by chromatography.

293. (New) The purified protein fragment of claim 285, wherein the protein fragment is recovered by an antibody.

294. (New) The purified protein fragment of claim 285, wherein the protein fragment is a homodimer.

295. (New) The purified protein fragment of claim 285, wherein the protein fragment is fused to a heterologous polypeptide.

296. (New) A composition comprising the purified protein fragment of claim 285 and a pharmaceutically acceptable carrier.

297. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 285, wherein the patient has a wound, tissue, or bone damage.

298. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 285, wherein the patient has ischemia.

299. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 285, wherein the patient has had a myocardial infarction.

300. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 285, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

301. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 285, wherein the patient has a wound, tissue, or bone damage.

302. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 285, wherein the patient has ischemia.

303. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 285, wherein the patient has had a myocardial infarction.

304. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 285, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

305. (New) A purified protein fragment produced by the method comprising:

- (a) expressing a protein fragment of at least 30 contiguous amino acids of SEQ ID NO:2 from a host cell; and

- (b) recovering said protein fragment.

306. (New) The purified protein fragment of claim 305, wherein the protein fragment is recovered from a natural source.

307. (New) The purified protein fragment of claim 305, wherein the protein fragment is recovered from a recombinant host cell engineered to express the protein fragment.

308. (New) The purified protein fragment of claim 305, wherein the protein fragment is recovered from a mammalian cell.

309. (New) The purified protein fragment of claim 305, wherein the protein fragment is recovered from a bacterial cell.

310. (New) The purified protein fragment of claim 305, wherein the protein fragment is recovered from a baculovirus cell.

311. (New) The purified protein fragment of claim 305, wherein the protein fragment is recovered from a yeast cell.

312. (New) The purified protein fragment of claim 305, wherein the protein fragment is recovered by chromatography.

313. (New) The purified protein fragment of claim 305, wherein the protein fragment is recovered by an antibody.

314. (New) The purified protein fragment of claim 305, wherein the protein fragment is at least 50 contiguous amino acids of SEQ ID NO:2.

315. (New) The purified protein fragment of claim 305, wherein the protein fragment is a homodimer.

316. (New) The purified protein fragment of claim 305, wherein the protein fragment is fused to a heterologous polypeptide.

317. (New) A composition comprising the purified protein fragment of claim 305 and a pharmaceutically acceptable carrier.

318. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 305, wherein the patient has a wound, tissue, or bone damage.

319. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 305, wherein the patient has ischemia.

320. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 305, wherein the patient has had a myocardial infarction.

321. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 305, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

322. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 305, wherein the patient has a wound, tissue, or bone damage.

323. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 305, wherein the patient has ischemia.

324. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 305, wherein the patient has had a myocardial infarction.

325. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 305, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

326. (New) A purified protein fragment produced by the method comprising:

- (a) expressing a protein fragment of at least 30 contiguous amino acids of the cDNA contained in ATCC Deposit No. 97149 from a host cell; and
- (b) recovering said protein fragment.

327. (New) The purified protein fragment of claim 326, wherein the protein fragment is recovered from a natural source.

328. (New) The purified protein fragment of claim 326, wherein the protein fragment is recovered from a recombinant host cell engineered to express the protein fragment.

329. (New) The purified protein fragment of claim 326, wherein the protein fragment is recovered from a mammalian cell.

330. (New) The purified protein fragment of claim 326, wherein the protein fragment is recovered from a bacterial cell.

331. (New) The purified protein fragment of claim 326, wherein the protein fragment is recovered from a baculovirus cell.

332. (New) The purified protein fragment of claim 326, wherein the protein fragment is recovered from a yeast cell.

333. (New) The purified protein fragment of claim 326, wherein the protein fragment is recovered by chromatography.

334. (New) The purified protein fragment of claim 326, wherein the protein fragment is recovered by an antibody.

335. (New) The purified protein fragment of claim 326, wherein the protein fragment is at least 50 contiguous amino acids of the cDNA contained in ATCC Deposit No. 97149.

336. (New) The purified protein fragment of claim 326, wherein the protein fragment is a homodimer.

337. (New) The purified protein fragment of claim 326, wherein the protein fragment is fused to a heterologous polypeptide.

338. (New) A composition comprising the purified protein fragment of claim 326 and a pharmaceutically acceptable carrier.

339. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 326, wherein the patient has a wound, tissue, or bone damage.

340. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 326, wherein the patient has ischemia.

341. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 326, wherein the patient has had a myocardial infarction.

342. (New) A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified protein fragment of claim 326, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.

343. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 326, wherein the patient has a wound, tissue, or bone damage.

344. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 326, wherein the patient has ischemia.

345. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 326, wherein the patient has had a myocardial infarction.

346. (New) A method of stimulating angiogenesis in a patient comprising administering to the patient the purified protein fragment of claim 326, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.--

### **Remarks**

Claims 2-21 and 25 have been canceled in favor of new claims 33-346, which find support in the claims as originally filed and throughout the specification.

The claims pending in the present application are similar to claims 1-186 issued in U.S. Patent No. 5,932,540 (Serial No. 08/999,811, filed December 24, 1997).

Support for independent claims 33, 53, 73, 93, 113, 133, 145, 165, 185, 205, 225, 245, 265, 285, 305, and 326 can be found, for example, at page 9, first full paragraph,